INSTRUCTION MANUAL

22X PTZ INDOOR DOME CAMERA

REVO ELITE

Model No.: RELPTZ22-1

(DC 12V ⎓ 650mA)

REVO AMERICA

700 FREEPORT PARKWAY SUITE 100 COPPELL,

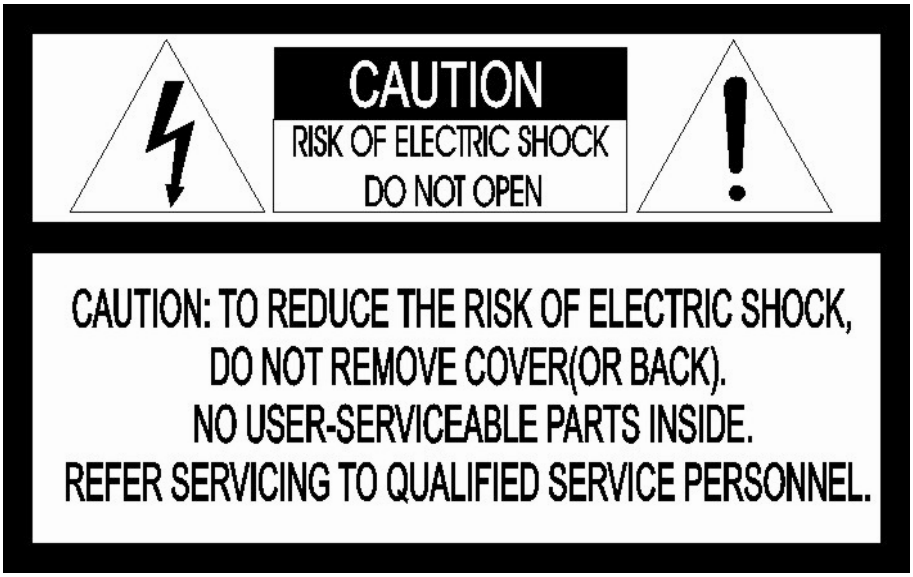
TX 75019 U.S.A TEL.: 1-866-625-REVO(7386)

Please read this manual thoroughly before use and keep it handy for future reference.

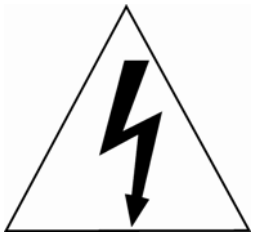
WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECTS THROUGH THE VENTILATION GRILLS OR OTHER OPENINGS ON THE EQUIPMENT.

CAUTION


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER(OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

EXPLANATION OF GRAPHICAL SYMBOLS



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

FCC COMPLIANCE STATEMENT

FCC INFORMATION: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

CE COMPLIANCE STATEMENT

WARNING
This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been moisture, does not operate normally, or has been dropped.
15. ***CAUTION – THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU QRE QUALIFIED TO DO SO.***
16. ***Use satisfy clause 2.5 of IEC60950-1/UL60950-1 or Certified/Listed Class 2 power source only.***

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Chapter 1 — Introduction

1.1 Features

The dome camera and the keyboard controller make up the building blocks for any surveillance/security system. Using multiple keyboard controllers and multiple dome cameras, no place is too large for monitoring. Extensible and flexible architecture facilitates remote control functions for a variety of external switching devices such as multiplexers and DVRs.

- Built-in optical power zoom camera with True Night Shot function
- 120 Preset positions
- 4 Tours consist of 42 Presets
- 4 Auto Scans and the Endless Auto-Pan with 13 speed steps
- 8 Area Titles
- 1 Alarm input / 1 Alarm output (5VTTL)
- Variable speed from 0.1°/sec to 240°/sec

  Three Variable speed (SLOW, NORMAL, TURBO)

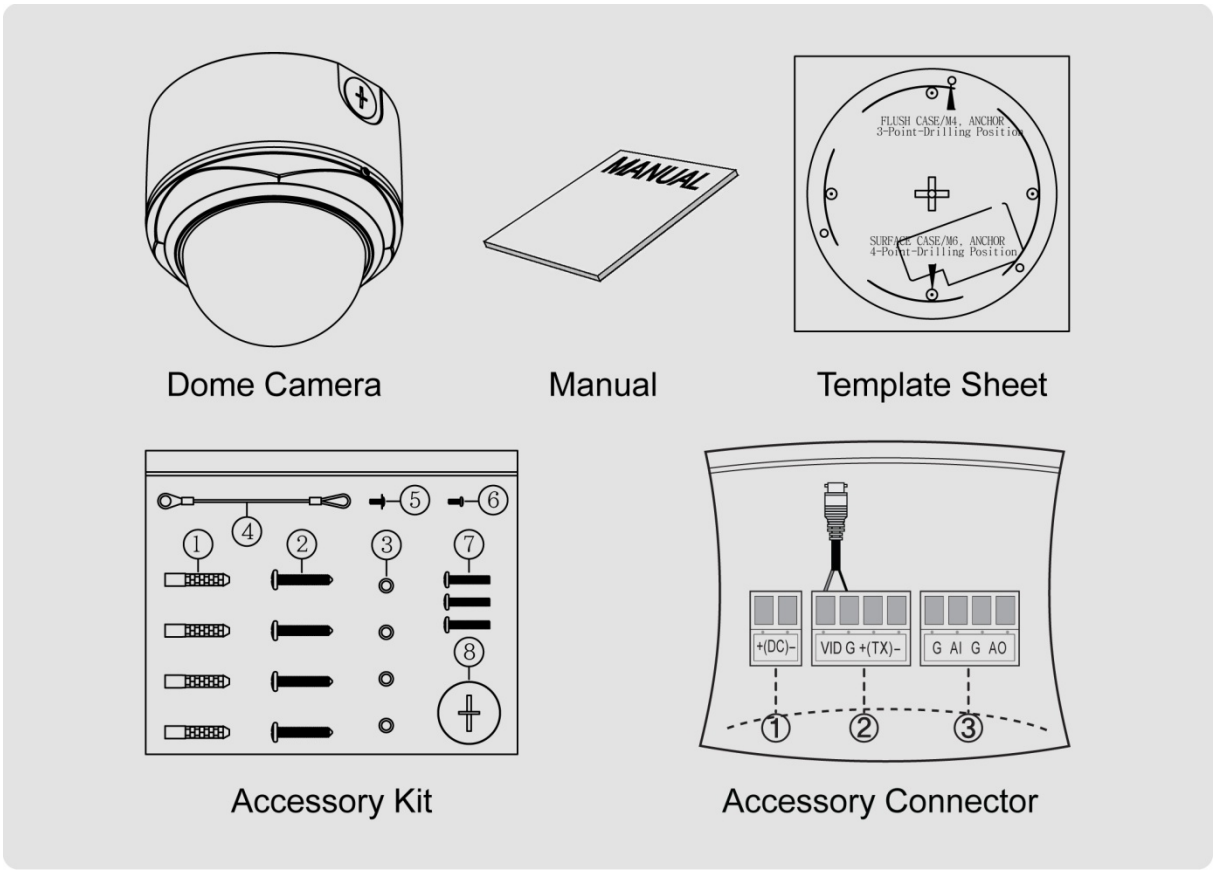
  Turbo speed is 240°/sec with Ctrl key pressed.
- Pan / Tilt speed is inversely proportional to the zoom ratio with the option.
- Maximum speed is 240°/sec when Preset command.
- Auto Calibration from 0.1° to 6° (Tilt range is 0° to 90°)
- Programmable user preferences (alarm, preset, title, etc.)
- 90° Auto Flip
- Up to 255 selectable camera addresses
- Multi-language Menu Display, Password Confirmation
- Built-in RS-485 receiver driver
- 12VDC for Dome
- Use Certified/Listed Class 2 power source only.

Chapter 2 — Installation and Configuration

2.1 Package Contents

The dome camera is design to a compact, small size, flush/surface dome camera housing. The housing is constructed of aluminum, steel and plastic. The housing is designed to be mounted both wall and ceiling type.

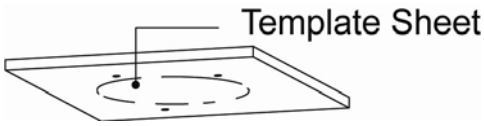
*** Dome Camera** **1**
*** Instruction Manual (This Document)** **1**
*** Template sheet** **1**
*** Accessory kit** **1**
1) Plastic anchors ..... (4)
2) Screws (Tapping, 6x35) ..... (4)
3) O-Rings ..... (4)
4) Safety lanyard ..... (1)
5) Screw (Machine, NPC 2.6x6) ..... (1)
6) Screw (Machine, PC 2.6x6) ..... (1)
7) Screws (Machine, PC 4x8) ..... (3)
8) PT Plug ..... (1)
*** Accessory connector** **1**
1) 2Pin Terminal Block ..... (1)
2) 4Pin Terminal Block + BNC Cable ..... (1)
3) 4Pin Terminal Block ..... (1)



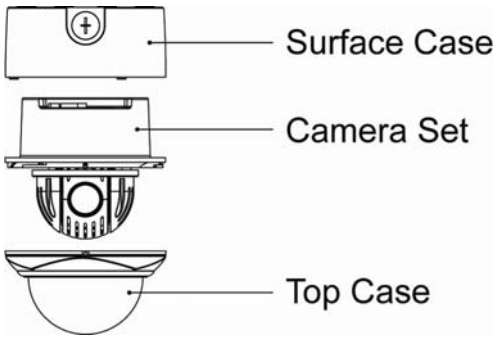
2.2 Installation

(1) Flush Type

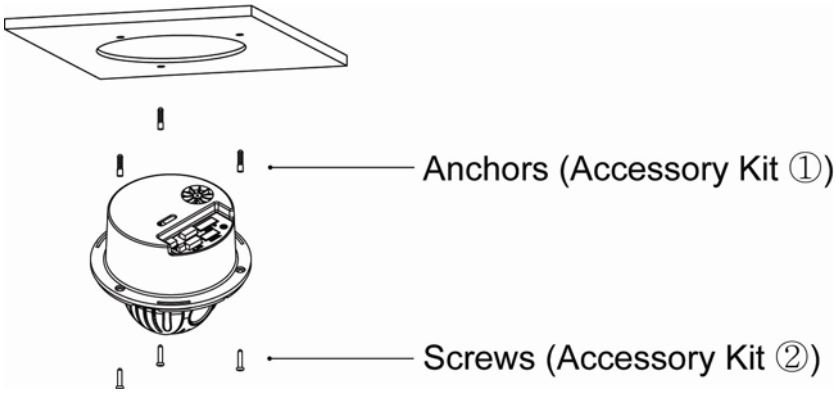
1) Make screw holes for camera on the ceiling with Template Sheet.



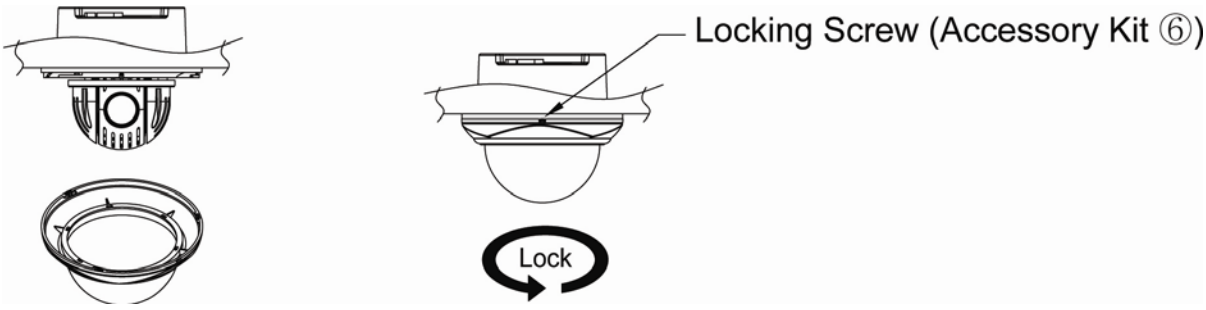
2) Disassemble a camera by Surface Case, Camera Set, and Top Case.



3) Fix the Camera Set using Anchors(3x) and Screws(3x) to the ceiling.

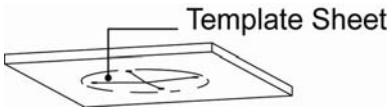


4) Assemble Top Case to Camera Set. Turn the Top case count clock wise to complete installation.

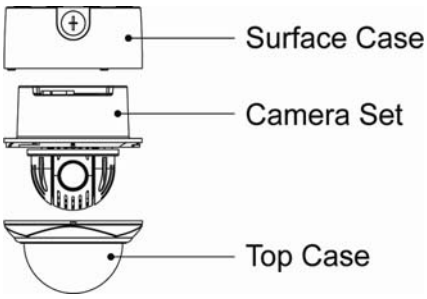


(2) Surface Type

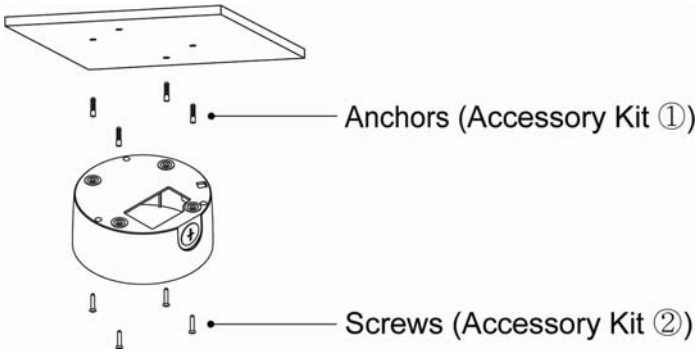
1) Make screw holes for camera on the ceiling with Template Sheet.



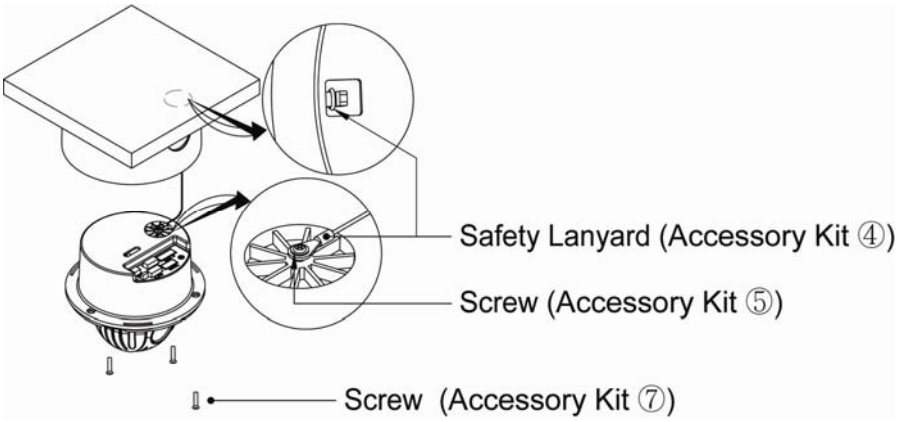
2) Disassemble a camera by Surface Case, Camera Set, and Top Case.



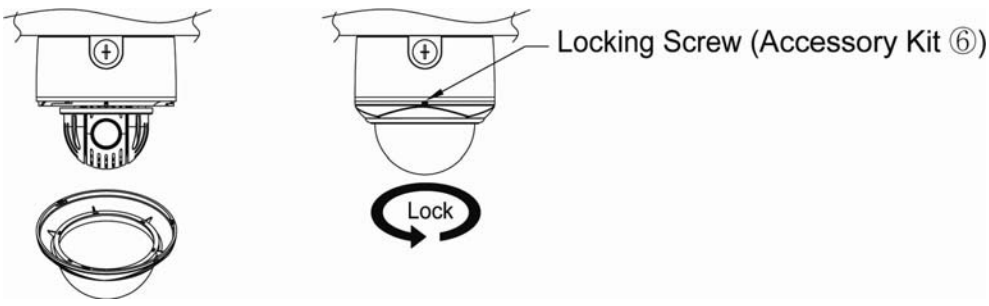
3) Fix the Surface Case using Anchors(4x) and Screws(4x) to the ceiling.



4) Assemble Camera Set into the Surface Case with Screws and Safety Lanyard.



5) Assemble Top Case to Camera Set. Turn the Top case count clock wise to complete installation.



2.3 Basic Configuration of Dome Camera System

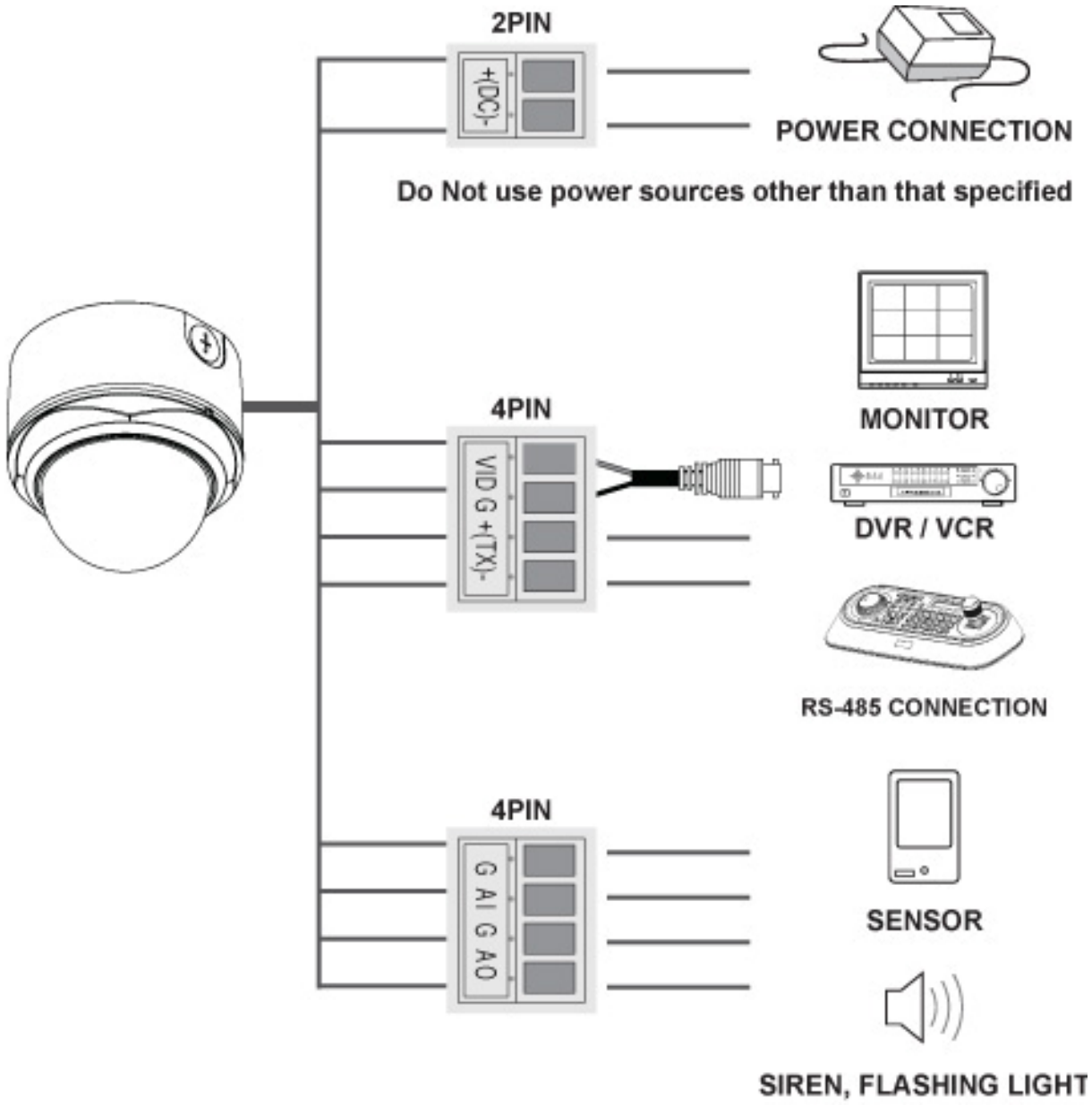


Figure 1 – Basic Installation Diagram

The dome camera must be installed by qualified service personnel in accordance with all local and federal electrical and building codes.

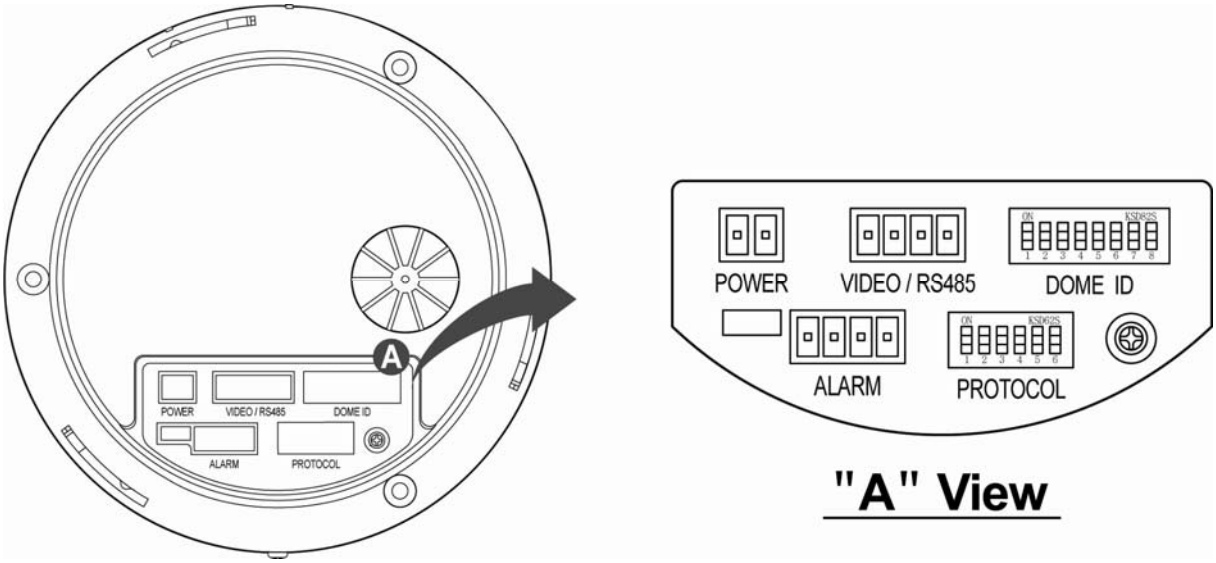
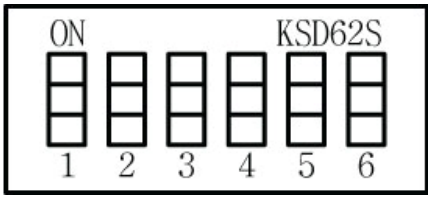


Figure 2 – Layout of DIP Switches

2.4 Setting Dome Camera Termination

The device which is connected at end of line, whether it is a dome camera or keyboard controller, must have the cable for communication terminated by setting the appropriate DIP switch.
Without proper termination, there is potential for control signal errors. Total length of the cable for communication should not exceed 4000ft (1.2km).



S2

S2	D1
Terminated	**ON**
Not terminated	OFF

Figure 3 – Setting Dome Camera Termination

2.5 Setting Dome Camera Address (ID)

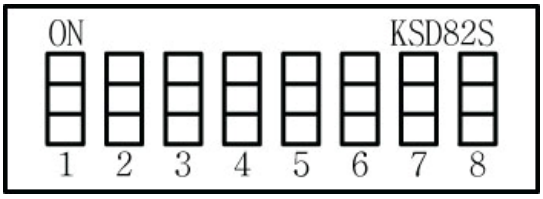
To prevent damage, each dome camera must have a unique address (ID).

When installing multiple dome cameras using a multiplexer, it is suggested that the dome camera address match the multiplexer port number.

The factory default setting is 1.

Refer to Figure 4.1 ~ 4.6 for setting the dome camera address (ID).

Example: Port 1 = Dome 1, Port 2 = Dome 2 … Port 16 = Dome 16. If more than 16 dome cameras are installed using two or more multiplexers, ID of the dome camera should be ID of MUX x No. of camera IN. (e.g. multiplexer ID= n, Camera IN= m then ID of Dome =16x(n-1)+m)



S1

DOME ID	D1 (1)	D2 (2)	D3 (4)	D4 (8)	D5 (16)	D6 (32)	D7 (64)	D8 (128)
1	**ON**	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	**ON**	OFF	OFF	OFF	OFF	OFF	OFF
3	**ON**	**ON**	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	**ON**	OFF	OFF	OFF	OFF	OFF
5	**ON**	OFF	**ON**	OFF	OFF	OFF	OFF	OFF
6	OFF	**ON**	**ON**	OFF	OFF	OFF	OFF	OFF
7	**ON**	**ON**	**ON**	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	**ON**	OFF	OFF	OFF	OFF
9	**ON**	OFF	OFF	**ON**	OFF	OFF	OFF	OFF
10	OFF	**ON**	OFF	**ON**	OFF	OFF	OFF	OFF
11	**ON**	**ON**	OFF	**ON**	OFF	OFF	OFF	OFF
12	OFF	OFF	**ON**	**ON**	OFF	OFF	OFF	OFF
13	**ON**	OFF	**ON**	**ON**	OFF	OFF	OFF	OFF
14	OFF	**ON**	**ON**	**ON**	OFF	OFF	OFF	OFF
15	**ON**	**ON**	**ON**	**ON**	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	**ON**	OFF	OFF	OFF
17	**ON**	OFF	OFF	OFF	**ON**	OFF	OFF	OFF
18	OFF	**ON**	OFF	OFF	**ON**	OFF	OFF	OFF
19	**ON**	**ON**	OFF	OFF	**ON**	OFF	OFF	OFF
20	OFF	OFF	**ON**	OFF	**ON**	OFF	OFF	OFF
21	**ON**	OFF	**ON**	OFF	**ON**	OFF	OFF	OFF
22	OFF	**ON**	**ON**	OFF	**ON**	OFF	OFF	OFF
23	**ON**	**ON**	**ON**	OFF	**ON**	OFF	OFF	OFF
24	OFF	OFF	OFF	**ON**	**ON**	OFF	OFF	OFF
25	**ON**	OFF	OFF	**ON**	**ON**	OFF	OFF	OFF
26	OFF	**ON**	OFF	**ON**	**ON**	OFF	OFF	OFF
27	**ON**	**ON**	OFF	**ON**	**ON**	OFF	OFF	OFF
28	OFF	OFF	**ON**	**ON**	**ON**	OFF	OFF	OFF
29	**ON**	OFF	**ON**	**ON**	**ON**	OFF	OFF	OFF
30	OFF	**ON**	**ON**	**ON**	**ON**	OFF	OFF	OFF
31	**ON**	**ON**	**ON**	**ON**	**ON**	OFF	OFF	OFF
32	OFF	OFF	OFF	OFF	OFF	**ON**	OFF	OFF
33	**ON**	OFF	OFF	OFF	OFF	**ON**	OFF	OFF
34	OFF	**ON**	OFF	OFF	OFF	**ON**	OFF	OFF
35	**ON**	**ON**	OFF	OFF	OFF	**ON**	OFF	OFF

Figure 4.1 – Setting Dome Camera Address (ID)

DOME ID	D1 (1)	D2 (2)	D3 (4)	D4 (8)	D5 (16)	D6 (32)	D7 (64)	D8 (128)
36	OFF	OFF	**ON**	OFF	OFF	**ON**	OFF	OFF
37	**ON**	OFF	**ON**	OFF	OFF	**ON**	OFF	OFF
38	OFF	**ON**	**ON**	OFF	OFF	**ON**	OFF	OFF
39	**ON**	**ON**	**ON**	OFF	OFF	**ON**	OFF	OFF
40	OFF	OFF	OFF	**ON**	OFF	**ON**	OFF	OFF
41	**ON**	OFF	OFF	**ON**	OFF	**ON**	OFF	OFF
42	OFF	**ON**	OFF	**ON**	OFF	**ON**	OFF	OFF
43	**ON**	**ON**	OFF	**ON**	OFF	**ON**	OFF	OFF
44	OFF	OFF	**ON**	**ON**	OFF	**ON**	OFF	OFF
45	**ON**	OFF	**ON**	**ON**	OFF	**ON**	OFF	OFF
46	OFF	**ON**	**ON**	**ON**	OFF	**ON**	OFF	OFF
47	**ON**	**ON**	**ON**	**ON**	OFF	**ON**	OFF	OFF
48	OFF	OFF	OFF	OFF	**ON**	**ON**	OFF	OFF
49	**ON**	OFF	OFF	OFF	**ON**	**ON**	OFF	OFF
50	OFF	**ON**	OFF	OFF	**ON**	**ON**	OFF	OFF
51	**ON**	**ON**	OFF	OFF	**ON**	**ON**	OFF	OFF
52	OFF	OFF	**ON**	OFF	**ON**	**ON**	OFF	OFF
53	**ON**	OFF	**ON**	OFF	**ON**	**ON**	OFF	OFF
54	OFF	**ON**	**ON**	OFF	**ON**	**ON**	OFF	OFF
55	**ON**	**ON**	**ON**	OFF	**ON**	**ON**	OFF	OFF
56	OFF	OFF	OFF	**ON**	**ON**	**ON**	OFF	OFF
57	**ON**	OFF	OFF	**ON**	**ON**	**ON**	OFF	OFF
58	OFF	**ON**	OFF	**ON**	**ON**	**ON**	OFF	OFF
59	**ON**	**ON**	OFF	**ON**	**ON**	**ON**	OFF	OFF
60	OFF	OFF	**ON**	**ON**	**ON**	**ON**	OFF	OFF
61	**ON**	OFF	**ON**	**ON**	**ON**	**ON**	OFF	OFF
62	OFF	**ON**	**ON**	**ON**	**ON**	**ON**	OFF	OFF
63	**ON**	**ON**	**ON**	**ON**	**ON**	**ON**	OFF	OFF
64	OFF	OFF	OFF	OFF	OFF	OFF	**ON**	OFF
65	**ON**	OFF	OFF	OFF	OFF	OFF	**ON**	OFF
66	OFF	**ON**	OFF	OFF	OFF	OFF	**ON**	OFF
67	**ON**	**ON**	OFF	OFF	OFF	OFF	**ON**	OFF
68	OFF	OFF	**ON**	OFF	OFF	OFF	**ON**	OFF
69	**ON**	OFF	**ON**	OFF	OFF	OFF	**ON**	OFF
70	OFF	**ON**	**ON**	OFF	OFF	OFF	**ON**	OFF
71	**ON**	**ON**	**ON**	OFF	OFF	OFF	**ON**	OFF
72	OFF	OFF	OFF	**ON**	OFF	OFF	**ON**	OFF
73	**ON**	OFF	OFF	**ON**	OFF	OFF	**ON**	OFF
74	OFF	**ON**	OFF	**ON**	OFF	OFF	**ON**	OFF
75	**ON**	**ON**	OFF	**ON**	OFF	OFF	**ON**	OFF
76	OFF	OFF	**ON**	**ON**	OFF	OFF	**ON**	OFF
77	**ON**	OFF	**ON**	**ON**	OFF	OFF	**ON**	OFF
78	OFF	**ON**	**ON**	**ON**	OFF	OFF	**ON**	OFF
79	**ON**	**ON**	**ON**	**ON**	OFF	OFF	**ON**	OFF
80	OFF	OFF	OFF	OFF	**ON**	OFF	**ON**	OFF

Figure 4.2 – Setting Dome Camera Address (ID)

DOME ID	D1 (1)	D2 (2)	D3 (4)	D4 (8)	D5 (16)	D6 (32)	D7 (64)	D8 (128)
81	**ON**	OFF	OFF	OFF	**ON**	OFF	**ON**	OFF
82	OFF	**ON**	OFF	OFF	**ON**	OFF	**ON**	OFF
83	**ON**	**ON**	OFF	OFF	**ON**	OFF	**ON**	OFF
84	OFF	OFF	**ON**	OFF	**ON**	OFF	**ON**	OFF
85	**ON**	OFF	**ON**	OFF	**ON**	OFF	**ON**	OFF
86	OFF	**ON**	**ON**	OFF	**ON**	OFF	**ON**	OFF
87	**ON**	**ON**	**ON**	OFF	**ON**	OFF	**ON**	OFF
88	OFF	OFF	OFF	**ON**	**ON**	OFF	**ON**	OFF
89	**ON**	OFF	OFF	**ON**	**ON**	OFF	**ON**	OFF
90	OFF	**ON**	OFF	**ON**	**ON**	OFF	**ON**	OFF
91	**ON**	**ON**	OFF	**ON**	**ON**	OFF	**ON**	OFF
92	OFF	OFF	**ON**	**ON**	**ON**	OFF	**ON**	OFF
93	**ON**	OFF	**ON**	**ON**	**ON**	OFF	**ON**	OFF
94	OFF	**ON**	**ON**	**ON**	**ON**	OFF	**ON**	OFF
95	**ON**	**ON**	**ON**	**ON**	**ON**	OFF	**ON**	OFF
96	OFF	OFF	OFF	OFF	OFF	**ON**	**ON**	OFF
97	**ON**	OFF	OFF	OFF	OFF	**ON**	**ON**	OFF
98	OFF	**ON**	OFF	OFF	OFF	**ON**	**ON**	OFF
99	**ON**	**ON**	OFF	OFF	OFF	**ON**	**ON**	OFF
100	OFF	OFF	**ON**	OFF	OFF	**ON**	**ON**	OFF
101	**ON**	OFF	**ON**	OFF	OFF	**ON**	**ON**	OFF
102	OFF	**ON**	**ON**	OFF	OFF	**ON**	**ON**	OFF
103	**ON**	**ON**	**ON**	OFF	OFF	**ON**	**ON**	OFF
104	OFF	OFF	OFF	**ON**	OFF	**ON**	**ON**	OFF
105	**ON**	OFF	OFF	**ON**	OFF	**ON**	**ON**	OFF
106	OFF	**ON**	OFF	**ON**	OFF	**ON**	**ON**	OFF
107	**ON**	**ON**	OFF	**ON**	OFF	**ON**	**ON**	OFF
108	OFF	OFF	**ON**	**ON**	OFF	**ON**	**ON**	OFF
109	**ON**	OFF	**ON**	**ON**	OFF	**ON**	**ON**	OFF
110	OFF	**ON**	**ON**	**ON**	OFF	**ON**	**ON**	OFF
111	**ON**	**ON**	**ON**	**ON**	OFF	**ON**	**ON**	OFF
112	OFF	OFF	OFF	OFF	**ON**	**ON**	**ON**	OFF
113	**ON**	OFF	OFF	OFF	**ON**	**ON**	**ON**	OFF
114	OFF	**ON**	OFF	OFF	**ON**	**ON**	**ON**	OFF
115	**ON**	**ON**	OFF	OFF	**ON**	**ON**	**ON**	OFF
116	OFF	OFF	**ON**	OFF	**ON**	**ON**	**ON**	OFF
117	**ON**	OFF	**ON**	OFF	**ON**	**ON**	**ON**	OFF
118	OFF	**ON**	**ON**	OFF	**ON**	**ON**	**ON**	OFF
119	**ON**	**ON**	**ON**	OFF	**ON**	**ON**	**ON**	OFF
120	OFF	OFF	OFF	**ON**	**ON**	**ON**	**ON**	OFF
121	**ON**	OFF	OFF	**ON**	**ON**	**ON**	**ON**	OFF
122	OFF	**ON**	OFF	**ON**	**ON**	**ON**	**ON**	OFF
123	**ON**	**ON**	OFF	**ON**	**ON**	**ON**	**ON**	OFF
124	OFF	OFF	**ON**	**ON**	**ON**	**ON**	**ON**	OFF
125	**ON**	OFF	**ON**	**ON**	**ON**	**ON**	**ON**	OFF

Figure 4.3 – Setting Dome Camera Address (ID)

DOME ID	D1 (1)	D2 (2)	D3 (4)	D4 (8)	D5 (16)	D6 (32)	D7 (64)	D8 (128)
126	OFF	**ON**	**ON**	**ON**	**ON**	**ON**	**ON**	OFF
127	**ON**	**ON**	**ON**	**ON**	**ON**	**ON**	**ON**	OFF
128	OFF	OFF	OFF	OFF	OFF	OFF	OFF	**ON**
129	**ON**	OFF	OFF	OFF	OFF	OFF	OFF	**ON**
130	OFF	**ON**	OFF	OFF	OFF	OFF	OFF	**ON**
131	**ON**	**ON**	OFF	OFF	OFF	OFF	OFF	**ON**
132	OFF	OFF	**ON**	OFF	OFF	OFF	OFF	**ON**
133	**ON**	OFF	**ON**	OFF	OFF	OFF	OFF	**ON**
134	OFF	**ON**	**ON**	OFF	OFF	OFF	OFF	**ON**
135	**ON**	**ON**	**ON**	OFF	OFF	OFF	OFF	**ON**
136	OFF	OFF	OFF	**ON**	OFF	OFF	OFF	**ON**
137	**ON**	OFF	OFF	**ON**	OFF	OFF	OFF	**ON**
138	OFF	**ON**	OFF	**ON**	OFF	OFF	OFF	**ON**
139	**ON**	**ON**	OFF	**ON**	OFF	OFF	OFF	**ON**
140	OFF	OFF	**ON**	**ON**	OFF	OFF	OFF	**ON**
141	**ON**	OFF	**ON**	**ON**	OFF	OFF	OFF	**ON**
142	OFF	**ON**	**ON**	**ON**	OFF	OFF	OFF	**ON**
143	**ON**	**ON**	**ON**	**ON**	OFF	OFF	OFF	**ON**
144	OFF	OFF	OFF	OFF	**ON**	OFF	OFF	**ON**
145	**ON**	OFF	OFF	OFF	**ON**	OFF	OFF	**ON**
146	OFF	**ON**	OFF	OFF	**ON**	OFF	OFF	**ON**
147	**ON**	**ON**	OFF	OFF	**ON**	OFF	OFF	**ON**
148	OFF	OFF	**ON**	OFF	**ON**	OFF	OFF	**ON**
149	**ON**	OFF	**ON**	OFF	**ON**	OFF	OFF	**ON**
150	OFF	**ON**	**ON**	OFF	**ON**	OFF	OFF	**ON**
151	**ON**	**ON**	**ON**	OFF	**ON**	OFF	OFF	**ON**
152	OFF	OFF	OFF	**ON**	**ON**	OFF	OFF	**ON**
153	**ON**	OFF	OFF	**ON**	**ON**	OFF	OFF	**ON**
154	OFF	**ON**	OFF	**ON**	**ON**	OFF	OFF	**ON**
155	**ON**	**ON**	OFF	**ON**	**ON**	OFF	OFF	**ON**
156	OFF	OFF	**ON**	**ON**	**ON**	OFF	OFF	**ON**
157	**ON**	OFF	**ON**	**ON**	**ON**	OFF	OFF	**ON**
158	OFF	**ON**	**ON**	**ON**	**ON**	OFF	OFF	**ON**
159	**ON**	**ON**	**ON**	**ON**	**ON**	OFF	OFF	**ON**
160	OFF	OFF	OFF	OFF	OFF	**ON**	OFF	**ON**
161	**ON**	OFF	OFF	OFF	OFF	**ON**	OFF	**ON**
162	OFF	**ON**	OFF	OFF	OFF	**ON**	OFF	**ON**
163	**ON**	**ON**	OFF	OFF	OFF	**ON**	OFF	**ON**
164	OFF	OFF	**ON**	OFF	OFF	**ON**	OFF	**ON**
165	**ON**	OFF	**ON**	OFF	OFF	**ON**	OFF	**ON**
166	OFF	**ON**	**ON**	OFF	OFF	**ON**	OFF	**ON**
167	**ON**	**ON**	**ON**	OFF	OFF	**ON**	OFF	**ON**
168	OFF	OFF	OFF	**ON**	OFF	**ON**	OFF	**ON**
169	**ON**	OFF	OFF	**ON**	OFF	**ON**	OFF	**ON**
170	OFF	**ON**	OFF	**ON**	OFF	**ON**	OFF	**ON**

Figure 4.4 – Setting Dome Camera Address (ID)

DOME ID	D1 (1)	D2 (2)	D3 (4)	D4 (8)	D5 (16)	D6 (32)	D7 (64)	D8 (128)
171	**ON**	**ON**	OFF	**ON**	OFF	**ON**	OFF	**ON**
172	OFF	OFF	**ON**	**ON**	OFF	**ON**	OFF	**ON**
173	**ON**	OFF	**ON**	**ON**	OFF	**ON**	OFF	**ON**
174	OFF	**ON**	**ON**	**ON**	OFF	**ON**	OFF	**ON**
175	**ON**	**ON**	**ON**	**ON**	OFF	**ON**	OFF	**ON**
176	OFF	OFF	OFF	OFF	**ON**	**ON**	OFF	**ON**
177	**ON**	OFF	OFF	OFF	**ON**	**ON**	OFF	**ON**
178	OFF	**ON**	OFF	OFF	**ON**	**ON**	OFF	**ON**
179	**ON**	**ON**	OFF	OFF	**ON**	**ON**	OFF	**ON**
180	OFF	OFF	**ON**	OFF	**ON**	**ON**	OFF	**ON**
181	**ON**	OFF	**ON**	OFF	**ON**	**ON**	OFF	**ON**
182	OFF	**ON**	**ON**	OFF	**ON**	**ON**	OFF	**ON**
183	**ON**	**ON**	**ON**	OFF	**ON**	**ON**	OFF	**ON**
184	OFF	OFF	OFF	**ON**	**ON**	**ON**	OFF	**ON**
185	**ON**	OFF	OFF	**ON**	**ON**	**ON**	OFF	**ON**
186	OFF	**ON**	OFF	**ON**	**ON**	**ON**	OFF	**ON**
187	**ON**	**ON**	OFF	**ON**	**ON**	**ON**	OFF	**ON**
188	OFF	OFF	**ON**	**ON**	**ON**	**ON**	OFF	**ON**
189	**ON**	OFF	**ON**	**ON**	**ON**	**ON**	OFF	**ON**
190	OFF	**ON**	**ON**	**ON**	**ON**	**ON**	OFF	**ON**
191	**ON**	**ON**	**ON**	**ON**	**ON**	**ON**	OFF	**ON**
192	OFF	OFF	OFF	OFF	OFF	OFF	**ON**	**ON**
193	**ON**	OFF	OFF	OFF	OFF	OFF	**ON**	**ON**
194	OFF	**ON**	OFF	OFF	OFF	OFF	**ON**	**ON**
195	**ON**	**ON**	OFF	OFF	OFF	OFF	**ON**	**ON**
196	OFF	OFF	**ON**	OFF	OFF	OFF	**ON**	**ON**
197	**ON**	OFF	**ON**	OFF	OFF	OFF	**ON**	**ON**
198	OFF	**ON**	**ON**	OFF	OFF	OFF	**ON**	**ON**
199	**ON**	**ON**	**ON**	OFF	OFF	OFF	**ON**	**ON**
200	OFF	OFF	OFF	**ON**	OFF	OFF	**ON**	**ON**
201	**ON**	OFF	OFF	**ON**	OFF	OFF	**ON**	**ON**
202	OFF	**ON**	OFF	**ON**	OFF	OFF	**ON**	**ON**
203	**ON**	**ON**	OFF	**ON**	OFF	OFF	**ON**	**ON**
204	OFF	OFF	**ON**	**ON**	OFF	OFF	**ON**	**ON**
205	**ON**	OFF	**ON**	**ON**	OFF	OFF	**ON**	**ON**
206	OFF	**ON**	**ON**	**ON**	OFF	OFF	**ON**	**ON**
207	**ON**	**ON**	**ON**	**ON**	OFF	OFF	**ON**	**ON**
208	OFF	OFF	OFF	OFF	**ON**	OFF	**ON**	**ON**
209	**ON**	OFF	OFF	OFF	**ON**	OFF	**ON**	**ON**
210	OFF	**ON**	OFF	OFF	**ON**	OFF	**ON**	**ON**
211	**ON**	**ON**	OFF	OFF	**ON**	OFF	**ON**	**ON**
212	OFF	OFF	**ON**	OFF	**ON**	OFF	**ON**	**ON**
213	**ON**	OFF	**ON**	OFF	**ON**	OFF	**ON**	**ON**
214	OFF	**ON**	**ON**	OFF	**ON**	OFF	**ON**	**ON**
215	**ON**	**ON**	**ON**	OFF	**ON**	OFF	**ON**	**ON**

Figure 4.5 – Setting Dome Camera Address (ID)

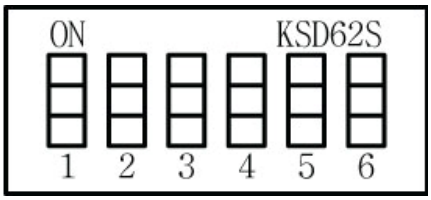
DOME ID	D1 (1)	D2 (2)	D3 (4)	D4 (8)	D5 (16)	D6 (32)	D7 (64)	D8 (128)
216	OFF	OFF	OFF	**ON**	**ON**	OFF	**ON**	**ON**
217	**ON**	OFF	OFF	**ON**	**ON**	OFF	**ON**	**ON**
218	OFF	**ON**	OFF	**ON**	**ON**	OFF	**ON**	**ON**
219	**ON**	**ON**	OFF	**ON**	**ON**	OFF	**ON**	**ON**
220	OFF	OFF	**ON**	**ON**	**ON**	OFF	**ON**	**ON**
221	**ON**	OFF	**ON**	**ON**	**ON**	OFF	**ON**	**ON**
222	OFF	**ON**	**ON**	**ON**	**ON**	OFF	**ON**	**ON**
223	**ON**	**ON**	**ON**	**ON**	**ON**	OFF	**ON**	**ON**
224	OFF	OFF	OFF	OFF	OFF	**ON**	**ON**	**ON**
225	**ON**	OFF	OFF	OFF	OFF	**ON**	**ON**	**ON**
226	OFF	**ON**	OFF	OFF	OFF	**ON**	**ON**	**ON**
227	**ON**	**ON**	OFF	OFF	OFF	**ON**	**ON**	**ON**
228	OFF	OFF	**ON**	OFF	OFF	**ON**	**ON**	**ON**
229	**ON**	OFF	**ON**	OFF	OFF	**ON**	**ON**	**ON**
230	OFF	**ON**	**ON**	OFF	OFF	**ON**	**ON**	**ON**
231	**ON**	**ON**	**ON**	OFF	OFF	**ON**	**ON**	**ON**
232	OFF	OFF	OFF	**ON**	OFF	**ON**	**ON**	**ON**
233	**ON**	OFF	OFF	**ON**	OFF	**ON**	**ON**	**ON**
234	OFF	**ON**	OFF	**ON**	OFF	**ON**	**ON**	**ON**
235	**ON**	**ON**	OFF	**ON**	OFF	**ON**	**ON**	**ON**
236	OFF	OFF	**ON**	**ON**	OFF	**ON**	**ON**	**ON**
237	**ON**	OFF	**ON**	**ON**	OFF	**ON**	**ON**	**ON**
238	OFF	**ON**	**ON**	**ON**	OFF	**ON**	**ON**	**ON**
239	**ON**	**ON**	**ON**	**ON**	OFF	**ON**	**ON**	**ON**
240	OFF	OFF	OFF	OFF	**ON**	**ON**	**ON**	**ON**
241	**ON**	OFF	OFF	OFF	**ON**	**ON**	**ON**	**ON**
242	OFF	**ON**	OFF	OFF	**ON**	**ON**	**ON**	**ON**
243	**ON**	**ON**	OFF	OFF	**ON**	**ON**	**ON**	**ON**
244	OFF	OFF	**ON**	OFF	**ON**	**ON**	**ON**	**ON**
245	**ON**	OFF	**ON**	OFF	**ON**	**ON**	**ON**	**ON**
246	OFF	**ON**	**ON**	OFF	**ON**	**ON**	**ON**	**ON**
247	**ON**	**ON**	**ON**	OFF	**ON**	**ON**	**ON**	**ON**
248	OFF	OFF	OFF	**ON**	**ON**	**ON**	**ON**	**ON**
249	**ON**	OFF	OFF	**ON**	**ON**	**ON**	**ON**	**ON**
250	OFF	**ON**	OFF	**ON**	**ON**	**ON**	**ON**	**ON**
251	**ON**	**ON**	OFF	**ON**	**ON**	**ON**	**ON**	**ON**
252	OFF	OFF	**ON**	**ON**	**ON**	**ON**	**ON**	**ON**
253	**ON**	OFF	**ON**	**ON**	**ON**	**ON**	**ON**	**ON**
254	OFF	**ON**	**ON**	**ON**	**ON**	**ON**	**ON**	**ON**
255	**ON**	**ON**	**ON**	**ON**	**ON**	**ON**	**ON**	**ON**

Figure 4.6 – Setting Dome Camera Address (ID)

2.6 Setting Dome Camera Protocol

If a dome camera is to be installed with the keyboard controller, select the default protocol.

Consult service personnel if a dome camera is installed with device other than a keyboard controller.



S2

You can set Protocol with dip switch D2, D3 and D4 in S2.

S2			PROTOCOL
D2	**D3**	**D4**	
OFF	OFF	OFF	F2, REVO TRAX, Pelco-P, Pelco-D : **default**
OFF	OFF	**ON**	F2, REVO TRAX
OFF	**ON**	**ON**	Pelco-P, Pelco-D

You can set Baud Rate with dip switch D5 and D6 in S2.

S2		BAUD RATE
D5	**D6**	
OFF	OFF	2400 bps
OFF	**ON**	4800 bps
ON	OFF	9600 bps : **default**
ON	**ON**	19200 bps

Figure 5 – Protocol, Baud rate Selection Switches

2.7 Connections

• Connecting to the RS485

The dome camera can be controlled remotely by an external device or control system, such as a control keyboard, using RS485 half-duplex serial communications signals.

• Connecting Video out connector

Connect the video out (BNC) connector to the monitor or video input.

• Connecting Alarms

AI (Alarm Input)

You can use external devices to signal the dome camera to react on events. Mechanical or electrical switches can be wired to the AI (Alarm Input) and G (Ground) connectors.

See Chapter 3 — Program and Operation for configuring alarm input.

G (Ground)

NOTE: All the connectors marked G or GND are common.

Connect the ground side of the alarm input and/or alarm output to the G (Ground) connector.

AO (5VTTL Alarm Output)

The dome camera can activate external devices such as buzzers or lights. Connect the device to the AO (Alarm Output) and G (Ground) connectors.

See Chapter 3 — Program and Operation for configuring alarm output.

• Connecting the Power

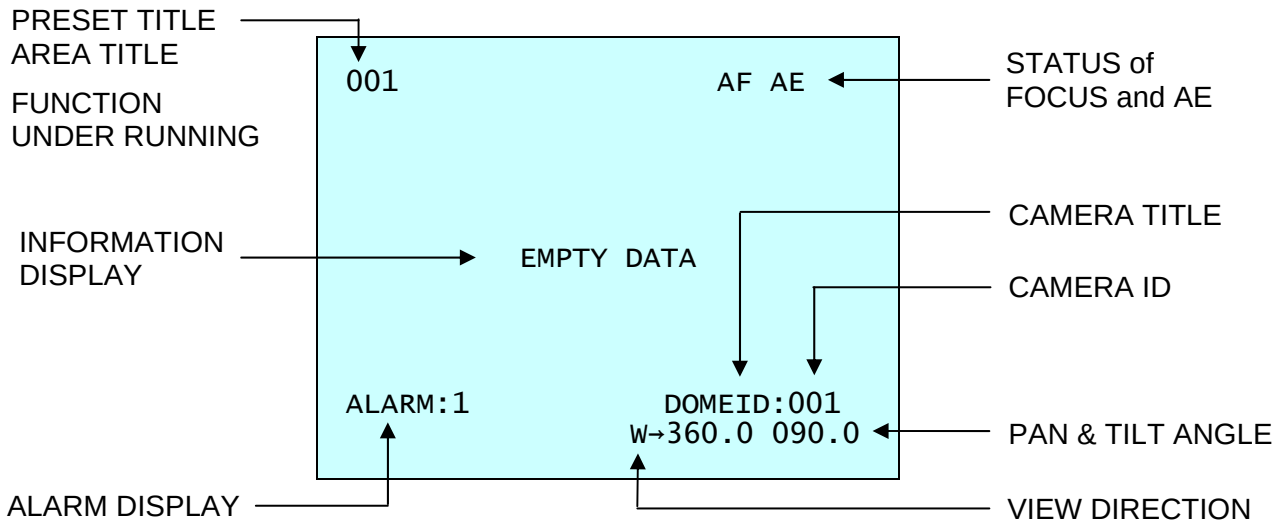
Connect the power of 12VDC 650mA for the dome camera.

When using a 12VDC adapter, connector the positive(+) pole to the '+' position and the negative(-) pole to the '-' position.

Use Certified/Listed Class 2 power source only.

2.8 Getting Started

Once installed apply power to the dome camera. The dome camera will start a configuration sequence.



OSD Position

Chapter 3 — Program and Operation

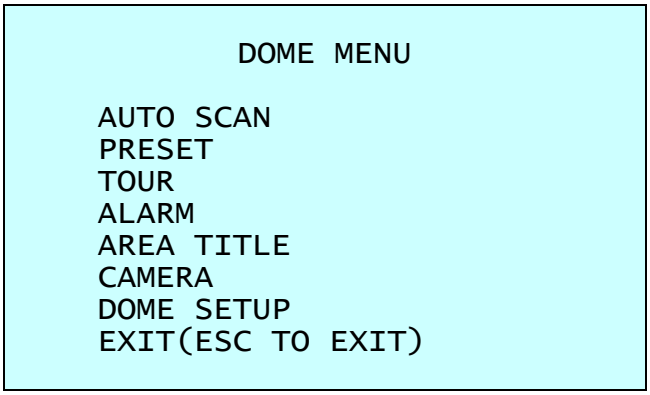
3.1 Dome Camera Selection

Before you program or operate a dome camera, you must select the dome camera by pressing **No.** + **CAM** keys.

Example: Pressing **1** , **0** + **CAM** keys sequentially will select dome camera 10. The selected dome camera ID will be displayed on the LCD monitor of the keyboard controller.

3.2 Accessing the On-Screen Menu Utility

You can call up the On-screen menu utility on your monitor by pressing the **MENU** key on the keyboard controller, the following On-screen menu utility will appear:



3.3 How to control the On-Screen Menu Utility

Function	Button
Call the On-screen menu utility.	**MENU**
Navigate through the menu items.	**Joystick up or down**
Go into the sub-menu items.	**Joystick right or IRIS Open**
Change value. Enter the editing title mode.	**Joystick left or right or** **Zoom handle twist or Tele , Wide**
Change value of angle.	**CTRL + Joystick**
Enter the changing angle mode.	**IRIS Open**
Exit the changing angle mode.	**IRIS Close**
Escape (EXIT)	**ESC or Joystick left**

3.4 Auto Scan (Shortcut: **SCAN**)

The Auto Scan supports up to 5 programmed angles at user-programmable speeds. Follow these steps to program Auto Scan:

```
          AUTO SCAN SETUP

  NUMBER          : 01
  TITLE           : A01
  SPEED           : 05 STEP
  START ANGLE     : ----- -----
  END ANGLE       : ----- -----
  SCAN DIR        : CCW
  SWAP            : OFF
  DWELL           : 03 SEC
  SAVE AND EXIT(ESC TO CANCEL)
```

NUMBER : 01 ~ 04, **09**:AUTO PAN mode.
TITLE : up to 12 characters.
SPEED : 01 ~ 13 step, the lower number means the slower speed.
SCAN DIR : Set the Scan direction, CCW(Counter Clock Wise), CW(Clock Wise).
SWAP : Swap the start point for the end point.
DWELL : Set the dwell time at the both end, 01 ~ 99 seconds.

1. Press the **MENU** key to display the main menu on the monitor. Scroll to Auto Scan and push the **Joystick** to the right.

2. Select "**NUMBER**" and set the desired number by pushing the **Joystick** to the left or right.

3. Select "**TITLE**" and twist the **Joystick** to enter the title edit mode.

4. Twist the **Joystick** by changing the alphanumeric characters and move the next position. Or move down to the character table and press the **CTRL** or **IRIS Open** key at the desired character then the cursor position moves to the next position automatically. Push the **Joystick** to the left or right at the "ALL DELETE" field to delete all characters. Push the **Joystick** to the left or right at the "EXIT" field to finish title edit menu.

```
          TITLE EDIT MENU

       A01
       *
       A B C D E F G H I J
       K L M N O P Q R S T
       U V W X Y Z 0 1 2 3
       4 5 6 7 8 9 ( )
      ALL DELETE
      EXIT(ESC TO EXIT)
```

5. Select "**START ANGLE**". Hold down the **CTRL** key while selecting the start position using the **Joystick**. Current panning position will be displayed. Release the **CTRL** key to complete the selection of the start position. Or press the **IRIS Open** key then the "CTRL" displays. Move the desired position and the zoom position. Press the **IRIS Close** key then the "CTRL" disappears.

6. Select “**END ANGLE**”. Hold down the **CTRL** key while moving the **Joystick** to select the end position. The end position angle should be larger than start position. Release the **CTRL** key to complete the selection of the end position. Or press the **IRIS Open** key then the “CTRL” displays. Move the desired position and the zoom position. Press the **IRIS Close** key then the “CTRL” disappears.

7. Set “**SCAN DIR**” to CCW or CW.

8. Select “**SWAP**”, Set to ON, to exchange the start angle and the end angle.

9. Set “**DWELL TIME**”.

10. Select “**SAVE AND EXIT**” and push the **Joystick** to the right or press the **IRIS Open** key. Press the **ESC** or **IRIS Close** key to exit the program without saving.

NOTE: Pressing the HOME key delete stored data at the angle field.

NOTE: 09:AUTO-PAN mode (Endless panning)

3.5 Preset (Shortcut: **PRST**)

If you need to view specific places routinely, you should program Presets. A Preset is a programmed video scene with automatic pan, tilt, zoom, focus and motion settings. Once programmed, placing the number position and pressing the **PRST** key on your controller calls up that Preset automatically. In addition, Presets may be assigned to alarm action or as the “home” position for the dome camera. As many as 120 Presets, whose positions are saved in the dome’s firmware, may be programmed.

There are two pages of Preset menu. Each page has 60 Presets. Pages can be scrolled by pushing the **Joystick** to the left or right on the first or last No. of Preset.

```
          PRESET SETUP

NUMBER       : 001
TITLE        : ---
CAMERA SET
DWELL        : -- SEC
     12345678901234567890
  00 **----------------
  02 --------------------
  04 --------------------
NEXT PAGE
SAVE AND EXIT(ESC TO CANCEL)
```

- : blank Preset position
* : position has the Preset
▉ : current cursor position

Follow steps below to store the Preset positions:

1. Press the **MENU** key to display the main menu on the monitor. Scroll to Preset and push the **Joystick** to the right.

2. Select the blank Preset position to be stored by pushing the **Joystick** up, down, right, or left.

3. After selecting a blank position, press and hold the **CTRL** key. Use the **Joystick** to control the direction of the camera and lens.

4. After aiming the camera (view direction and lens control), release the **CTRL** key. The cursor will be on the "**TITLE**" after saving data then twist the **Joystick** or press the **Tele** or **Wide** key to edit the Preset title. Follow the procedure of the Auto Scan above to edit titles.

5. Select "**CAMERA SET**" and pushing the **Joystick** to the left or right. Then the Preset camera setup displays.

```
        PRESET CAMERA SETUP

FOCUS        : AUTO
MOTION       : OFF
MOTION SETUP
SAVE AND EXIT(ESC TO CANCEL)
```

Set **FOCUS** : AUTO, MANUAL, ONE PUSH
Set **MOTION** : OFF, ON

Select "**MOTION SETUP**" and pushing the **Joystick** to the left or right. Then the MOTION setup displays.

```
          MOTION SETUP

SENSITIVITY    : 06
POSITION       : ALL
DELAY          : 00 SEC
OUTPUT         : OFF
HOLD TIME      : 03 SEC
EXIT(ESC TO EXIT)
```

Set **SENSITIVITY** : 01 ~ 10
Set **POSITION** : ALL, CENTER
Set **DELAY** : 00 ~ 05 SEC
Set **OUTPUT** : OFF, ON
Set **HOLD TIME** : 03 ~ 99 SEC

6. Set "**DWELL TIME**". (03 ~ 99 seconds)

7. To select the next page of Presets, scroll the page by pushing the **Joystick** to the left on the first and last columns of the menu.

8. Repeat step 2 through 7 for each additional Preset position.

9. Select "**SAVE AND EXIT**" and push the **Joystick** to the right or press the **IRIS Open** key. Press the **ESC** or **IRIS Close** key to exit the program without saving.

NOTE: Press the HOME key at programmed Preset position(*) to delete a programmed Preset view.

The position, which is marked with the *, already has the Preset view assigned. To review the stored Preset, twist the **Joystick** on the *.

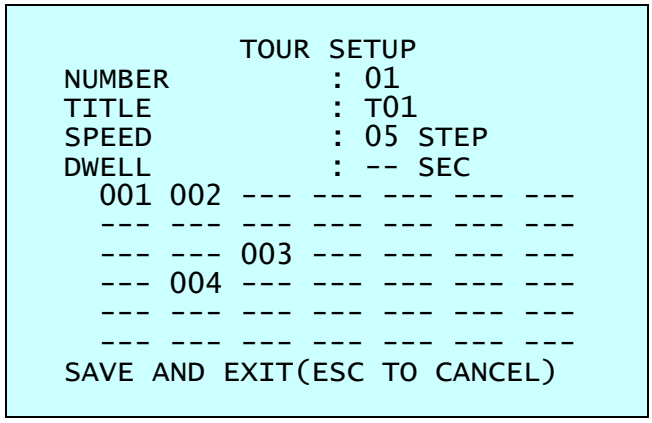
3.6 Shortcut of Preset Program

After selecting the desired scene, press No. (**1** to **120**), and press the **CTRL** and **PRST** keys subsequently. The current view will be stored to the selected Preset number if the Preset number is empty. If selected Preset number is not empty, "*OVER WRITE*" message will be displayed on the monitor and select the "OK" and push the **Joystick** to the right to overwrite.

Example: **1** , **0** , **1** + **CTRL** + **PRST** keys will store current view as Preset no. **101**. In this case, focus will be programmed as Auto, dwell time will be set to 3 second, and the current AE mode will be programmed.

3.7 Tour (Shortcut: **TOUR**)

There are 4 programmable Tours. Each Tour consists of up to 42 Preset positions.

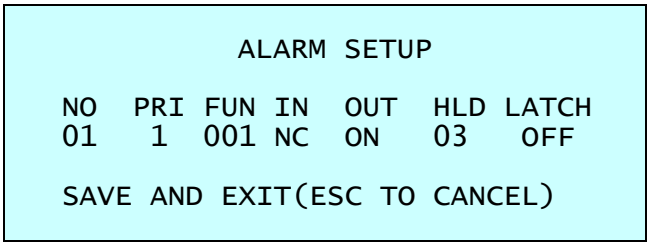


---	: blank position
DWELL	: 03 ~ 99 SEC
001	: Preset (1 ~ 120)

Follow the steps below to program the Tours:

1. Press the **MENU** key to display the main menu on the monitor. Scroll to Tour and push the **Joystick** to the right to enter the Tour menu.
2. Select "**NUMBER**" and set the desired number by pushing the **Joystick** to the left or right.
3. Choose a blank position to be programmed by pushing the **Joystick** up, down, right, or left.
4. To add a stored Preset, twist the **Joystick** then the stored Preset number displays.
5. You can also overwrite the programmed number and to remove a stored number from the Tour, press the **HOME** key on the stored number, a blank position mark (---) will be displayed.
6. Repeat step 2 through 5 for each desired position. Each title will be displayed on top of the line.
7. To edit the "**TITLE**", follow the procedure of the Auto Scan above to edit titles.
8. Select "**SAVE AND EXIT**" and push the **Joystick** to the right or press the **IRIS Open** key. Press the **ESC** or **IRIS Close** key to exit the program without saving.

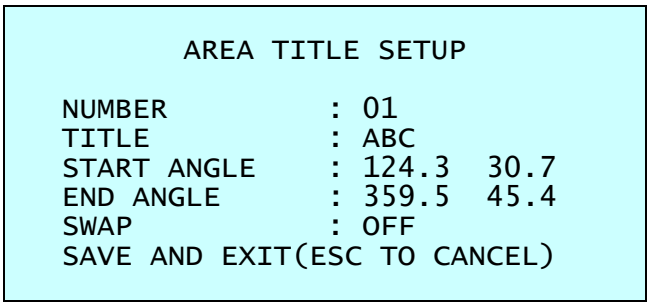
3.8 Alarm



NO : alarm input number
PRI(Priority) : The lower number has higher priority. (1 fixed)
FUN(Function) : Stored preset number to be called by alarm.
IN : NO/NC – normally open/closed, OFF – ignore
OUT : ON – 5VTTL output on, OFF – No output
HLD(Hold) : Alarm will be held for programmed time. (03 to 99 seconds)
LATCH : ON – Alarm message will remain on the screen even though alarm input is deactivated.
OFF – Alarm message will disappear on the screen after programmed hold time when alarm input is deactivated.

3.9 Area Title

Enter a specific name on programmed angle between START and END. For the screen below, when the camera points at an angle between 124.3° (PAN), 30.7° (TILT) to 359.5° (PAN), 45.4° (TILT), ABC will be displayed on the screen.



NUMBER : 01 ~ 08
TITLE : up to 12 characters.
SWAP : Swap the start point for the end point.

1. Select "**NUMBER**" and set the desired number by pushing the **Joystick** to the left or right.
2. To edit the "**TITLE**", follow the procedure of the Auto Scan above to edit titles.
3. Select "**START ANGLE**". Hold down the **CTRL** key while selecting the start position using the **Joystick**. Current panning position will be displayed. Release the **CTRL** key to complete the selection of the start position. Or press the **IRIS Open** key then the "CTRL" displays. Move the desired position. Press the **IRIS Close** key then the "CTRL" disappears.
4. Select "**END ANGLE**". Hold down the **CTRL** key while moving the **Joystick** to select the end position. Release the **CTRL** key to complete the selection of the end position. Or press the

IRIS Open key then the “CTRL” displays. Move the desired position. Press the **IRIS Close** key then the “CTRL” disappears.

5. Select “**SWAP**”. Set to ON, to exchange the start angle and the end angle.

6. Select “**SAVE AND EXIT**” and push the **Joystick** to the right or press the **IRIS Open** key. Press the **ESC** or **IRIS Close** key to exit the program without saving.

3.10 Camera Menu

```
          CAMERA SETUP

FOCUS CONTROL
WB CONTROL
AE CONTROL
SHARPNESS          : 05
RESOLUTION         : LOW
SAVE AND EXIT(ESC TO CANCEL)
```

SHARPNESS The higher the value, the more edges in the picture will be enhanced. (0 ~ 15)

RESOLUTION Select high resolution mode. (LOW / MID / HIGH)

• FOCUS CONTROL

```
           FOCUS SETUP

MODE            : AUTO
FOCUS LIMIT     : 1.0M
SAVE AND EXIT(ESC TO CANCEL)
```

MODE AUTO / MANUAL / ONE PUSH / CONSTANT MANUAL
Use manual mode in normal use.

FOCUS LIMIT This distance is approximate value and the focus operate from the setting value.

CAUTION: Avoid continuous, 24-hour use of the auto focus. This will shorten the lifespan of the lens.

• WB (White Balance) CONTROL

```
            WB SETUP

MODE            : AWB
R GAIN          : ---
B GAIN          : ---
SAVE AND EXIT(ESC TO CANCEL)
```

MODE AWB / WAWB / INDOOR / OUTDOOR / MANUAL

AWB Computes the white balance value output using color information from the entire screen automatically. (2500 to 9500 °K)

WAWB	Wide range auto white balance mode (1800 to 10500 °K)
INDOOR	Indoor white balance mode
OUTDOOR	Outdoor white balance mode
MANUAL	Manual mode, you can change R and B Gain manually.
RGAIN	0 ~ 255
BGAIN	0 ~ 255

RGAIN / BGAIN modes are controllable only in MANUAL Mode.

• AE CONTROL

```
              AE SETUP

  MODE               : MANUAL
  GAIN               : MIN
  BRIGHT             : 024
  SHUTTER            : 1/50
  FLICKERLESS        : ---
  BACK LIGHT         : OFF
  ATR                : ---
  DNR                : ---
  NIGHT SHOT         : AUTO
  SAVE AND EXIT(ESC TO CANCEL)
```

MODE	AE1 / AE2 / SHUTTER PRIO / MANUAL
AE1	Auto exposure mode1 (Use to normal surroundings: indoor)
AE2	Auto exposure mode2 (Use to high brightness surroundings: outdoor)
SHUTTER PRIO	Variable Shutter speed, Auto Gain
MANUAL	Variable Shutter speed, Gain
GAIN	MIN / LOW / MID / HIGH
BRIGHT	10 ~ 50
SHUTTER	1/60(50), 1/100(120), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000
FLICKERLESS	OFF / ON
BACK LIGHT	OFF / BLC / HLC
ATR	OFF / ON
DNR	OFF / 1 ~ 7
NIGHT SHOT	AUTO / ON / OFF / GLOBAL

NOTE: Values in ( ) are for PAL Camera.
NOTE: When BACKLIGHT set BLC or HLC, focus issues may occur in certain lighting conditions.

The NIGHT SHOT option removes the IR cutoff filter of the camera and makes the camera sensitive to near infrared.

AUTO	Camera goes in to B&W mode at low light.
GLOBAL	Controlled by the keyboard **(NOTE: GLOBAL function operates F2E protocol only)**

The operator can enable NIGHT SHOT for all dome cameras at the same time. If the NIGHT SHOT mode is set to GLOBAL, “999” + **ENTER** will turn Off the NIGHT SHOT mode and “888” + **ENTER** will turn On the NIGHT SHOT mode.

ON	B/W mode
OFF	Color mode

NOTE: AUTO in NIGHT SHOT function is not applied in “MANUAL” mode of AE Control.

3.11 Dome Setup

```
        CONFIGURATION MENU

LANGUAGE          : ENGLISH
HOME FUNCTION SETUP
OSD DISPLAY
VIEW ANGLE SETUP
INITIALIZE DATA
SYSTEM MENU
SYSTEM INFORMATION
SAVE AND EXIT(ESC TO CANCEL)
```

• LANGUAGE SETUP

LANGUAGE : Select the language you want.

• HOME FUNCTION SETUP

```
        HOME FUNCTION SETUP

HOME FUNCTION     : NONE
FUNCTION NUMBER   : ---
WAITING TIME      : 120 SEC
FUNCTION ENABLE   : OFF
SAVE AND EXIT(ESC TO CANCEL)
```

HOME FUNCTION : None / Tour / Auto Scan / Preset
FUNCTION NUMBER : - - -
WAITING TIME : 10 ~ 240 seconds
FUNCTION ENABLE : ON / OFF

The Home function can be set so that the camera automatically goes to Tour, Auto Scan or Preset after the keyboard controller has been idle for a amount of time.
For example, if the controller is idle for 120 seconds, the camera goes to Preset 1.

Follow these steps to program the Home position:

1. Select "**HOME FUNCTION**" by pushing the **Joystick** to the left or right to scroll through the None, Tour, Auto Scan or Preset functions.
2. Select "**FUNCTION NUMBER**" and push the **Joystick** to the left or right. The recorded function number will scroll.
3. Select "**WAITING TIME**" and push the **Joystick** to the left or right to select from 10 to 240 seconds.
4. Select "**FUNCTION ENABLE**" and turn to ON or OFF by pushing the **Joystick** to the left or right.

• OSD DISPLAY

```
        OSD DISPLAY SETUP

CAMERA TITLE          : DOMEID
VIEW DIRECTION        : OFF
DOME OSD              : ON
AREA TITLE            : OFF
PRESET TITLE          : CONSTANT
FOCUS EXPOSURE        : ON

SAVE AND EXIT(ESC TO CANCEL)
```

CAMERA TITLE : up to 6 characters.

VIEW DIRECTION : ON / OFF
"ON" sets 0 degree is N(North). "OFF" hides the directional title. Every 90 degrees of clockwise rotation will change the title to E(East), S(South), W(West).

DOME OSD : ON / OFF
All display or title will disappear when DOME OSD DISPLAY sets OFF.

AREA TITLE : ON / OFF
If this option is enabled, the area title displays when the camera moves.
NOTE: The DOME OSD DISPLAY must be enabled.

PRESET TITLE : CONSTANT / OFF
Set the Preset title display.

FOCUS EXPOSURE : ON / OFF
ON: FOCUS and EXPOSURE displays. (AF AE)

• VIEW ANGLE SETUP

```
        VIEW ANGLE SETUP

FLIP                  : AUTO
TILT LIMIT            : OFF
SAVE AND EXIT(ESC TO CANCEL)
```

FLIP: OFF, AUTO
OFF: the dome camera moves until 90° vertically.
AUTO: When the camera reaches the floor directly above the moving object, it will stop. At that time, release the **Joystick** instantly and pull it down again to run the auto-flip function. When you use the panning range, we recommend using the flip mode to AUTO.

TILT LIMIT:
This option has been designed to limit the view angle as there is some obstruction in zooming out on specific area of the tilt angle.
ON: When this option is enabled, the range of the tilt angle will be limited to 10 degree. This can prevent from obstruction or bad focus problem caused by the horizontal line of the semi sphere in the bubble.
OFF: When this option is disabled, the range of the tilt angle will not be limited. When you zoom out within the range of the tilt angle, you will see the horizontal line of the semi sphere in the bubble. Focus issues may occur in certain lighting conditions.

• INITIALIZE DATA

```
        INITIALIZE DATA

FACTORY DEFAULT
ERASE PROGRAMMED DATA
PRESET FOCUS DEFAULT
EXIT(ESC TO EXIT)
```

FACTORY DEFAULT

Select "**FACTORY DEFAULT**" to initialize the Data.

```
        FACTORY DEFAULT

        ARE YOU SURE ?

            CANCEL
              OK
```

ERASE PROGRAMMED DATA

Erase all stored data from the Flash-ROM of the selected dome camera. You will be asked to enter ON or OFF. If you desire to erase all data then select "ERASE" run, otherwise press the **ESC** key to exit without erasing. The erased data includes all stored data (Auto Scan, Preset, and Tour….) except origin offset.

The offset value is still valid after all data is erased. The offset value can be zero with default set of Offset origin menu.

```
      ERASE PROGRAMMED DATA

AUTO SCAN          : ON
PRESET             : ON
TOUR               : ON
ALARM              : ON
AREA TITLE         : ON
CAMERA             : ON
DOME SETUP         : ON
ERASE
SAVE AND EXIT(ESC TO CANCEL)
```

PRESET FOCUS DEFAULT

This menu set the default mode of the focus when you save the Preset.

```
     PRESET FOCUS DEFAULT

FOCUS       : AUTO

SAVE AND EXIT(ESC TO CANCEL)
```

FOCUS : AUTO / MANUAL / ONE PUSH

• SYSTEM MENU

```
            SYSTEM MENU

   MOTOR SETUP
   PASSWORD EDIT
   ORIGIN CHECK
   WHITE DEFECT COMPENSATION
   CALIBRATION            : ON
   PASSWORD ENABLE        : OFF
   BLINK CURSOR           : ON
   DOME ANSWER            : ON
   SAVE AND EXIT(ESC TO CANCEL)
```

CALIBRATION : ON(Auto origin check) / OFF
PASSWORD ENABLE : ON(requires the password to enter menu) / OFF
BLINK CURSOR : ON / OFF(no blinking cursor)
DOME ANSWER : ON / OFF(no acknowledge command from the dome)
This option is helpful to escape the collision of the command using some DVR.

MOTOR SETUP

Motor Setup menu provides the pan and tilt speed of a camera. User can set the desired speed with pushing the **Joystick** to the left or right. During operation, pressing **153** + **ON** keys will change the speed to the SLOW mode and pressing **153** + **OFF** keys will change the speed to the Normal mode.
Press and hold the **CTRL** key and moving the **Joystick** will operate with the TURBO speed mode.

```
            MOTOR SETUP

   PROPOTIONAL P/T        : ON
   P/T MODE               : NORMAL

   SAVE AND EXIT(ESC TO CANCEL)
```

PROPOTIONAL P/T : ON / OFF
P/T MODE : SLOW / NORMAL / TURBO
SLOW MAXIMUM SPEED : 40˚/second
NORMAL MAXIMUM SPEED : 90˚/second
TURBO MAXIMUM SPEED : 240˚/second

PASSWORD EDIT

```
      PASSWORD EDIT SETUP
                    (CTRL KEY)
   INPUT PASSWORD
   PASSWORD :

       A B C D E F G H I J
       K L M N O P Q R S T
       U V W X Y Z 0 1 2 3
       4 5 6 7 8 9 ( )

   SAVE AND EXIT(ESC TO CANCEL)
```

You can change the password with 6-digit character in this menu.
The default password is **555555**.
When the password enable is on, the input password window displays to enter the menu. At this time, move the cursor to the desired character by the **Joystick** and press the **CTRL** or **IRIS Open** key.

ORIGIN CHECK

When you find the wrong position of the dome during operation, execute this origin check and the dome camera will arrange the right position after the origin check operation.

```
ORIGIN CHECK

ARE YOU SURE ?

CANCEL
  OK
```

Pressing **151** + **ON** keys will execute the origin check.

WHITE DEFECT COMPENSATION

White defect of CCD sensor will be compensated.

```
WHITE DEFECT COMPENSATION

ARE YOU SURE ?

CANCEL
  OK
```

• SYSTEM INFORMATION

```
SYSTEM INFORMATION

CAMERA TYPE : xxxxxx-Vx.xxxx
H/W VERSION : Vx.xx-xxxx
ROM VERSION : Vx.xxxxx
PROTOCOL    : xxxx
BAUDRATE    : 9600

EXIT(ESC TO EXIT)
```

The system information provides essential information about the dome camera if service is required. When you view this screen, you can determine the camera type, ROM version. The information on this screen cannot be modified.

Appendix A — Specifications

22X REVO TRAX Dome Camera

MODEL	22X
MODULE	
CCD Type	1/4" Type Super HAD CCD II
Optical Zoom	**22X**
Max Resolution	580 TVL
Focal length	f = 3.9mm ~ 85.8mm
Angle of view	3.9mm – 49.5° (H) 85.8mm – 2.4° (H)
F-Number	F1.6 ~ F3.7
Min. Illumination	
- Normal	0.5 Lux
ICR on (Day & Night)	YES
Motion Detection (in PRESET)	YES
DOME	
Tilt angle	**0° ~ 90°** (Auto Flip)
Auto Calibration	0.1° ~ 6°
Panning angle	360 continuous rotation
Alarm	**1** input (NC/NO), **1** 5VTTL output
Auto Scan	1 auto pan & **4** auto scan capability
Preset	**120** presets
Tour	**4** tours (consist of 42 presets / 1 tour)
Max Speed	**240°** /sec.
Area Title	it can be divided **8** areas with 12 characters of title
Electrical	
Power Source	12VDC ± 10%
Power Consumption	8W (650mA)
Control	RS-485, baud rate: 2400 ~ 19.2k bps (default: 9600 bps)
ID (Camera Address)	1 ~ 255
Mechanical	
Dimension	See dimension
Weight	Approx. 1.1 kg for dome
Environment	
Operating temperature	0°C to 40°C (32°F to 104°F)
Operating humidity	0 to 90%RH (non-condensing)
Storage temperature	-20°C to 60°C (-4°F to 140°F)

* Specifications are subject to change without notice *

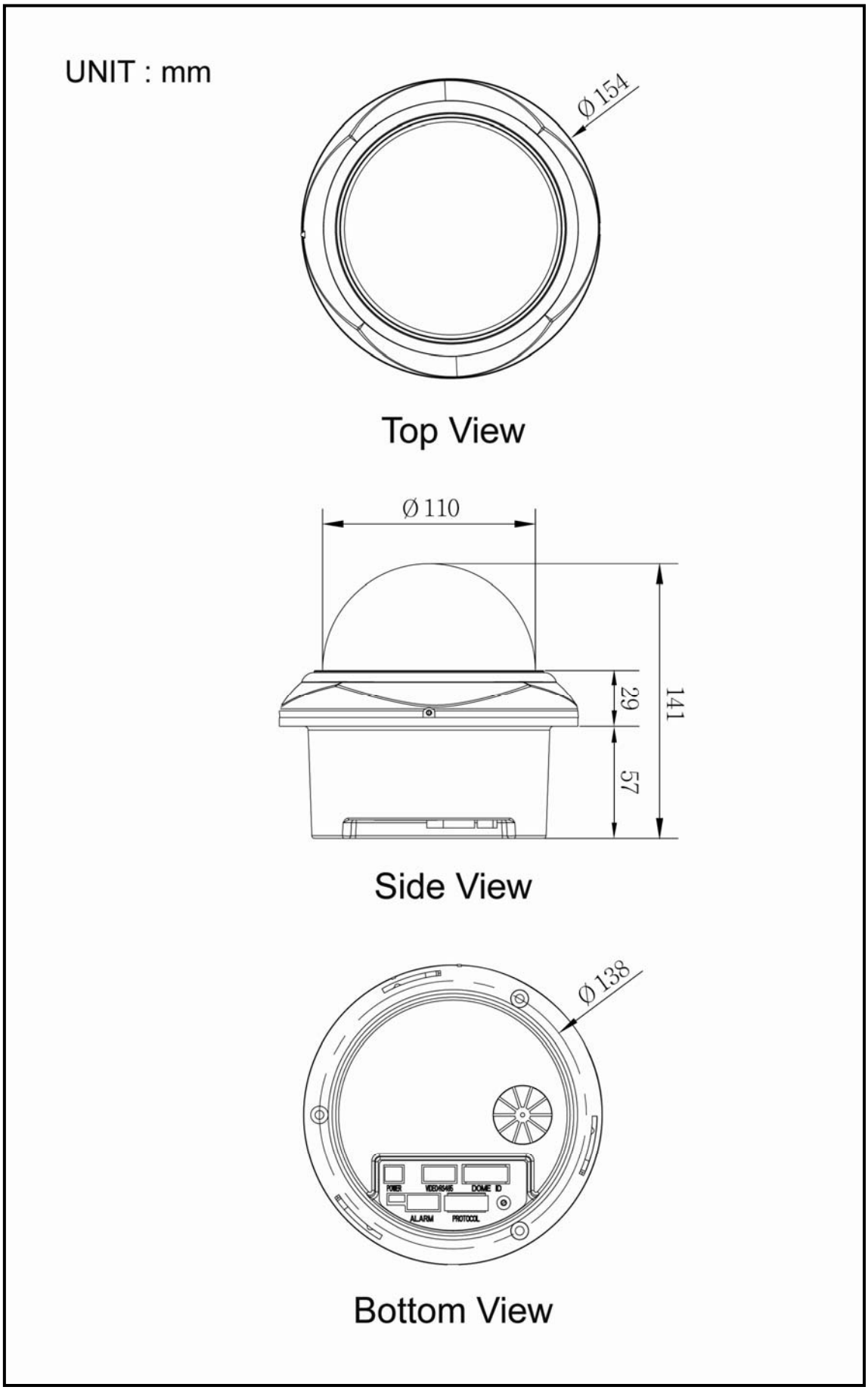


Figure 6.1 – Dimension (Flush Case)

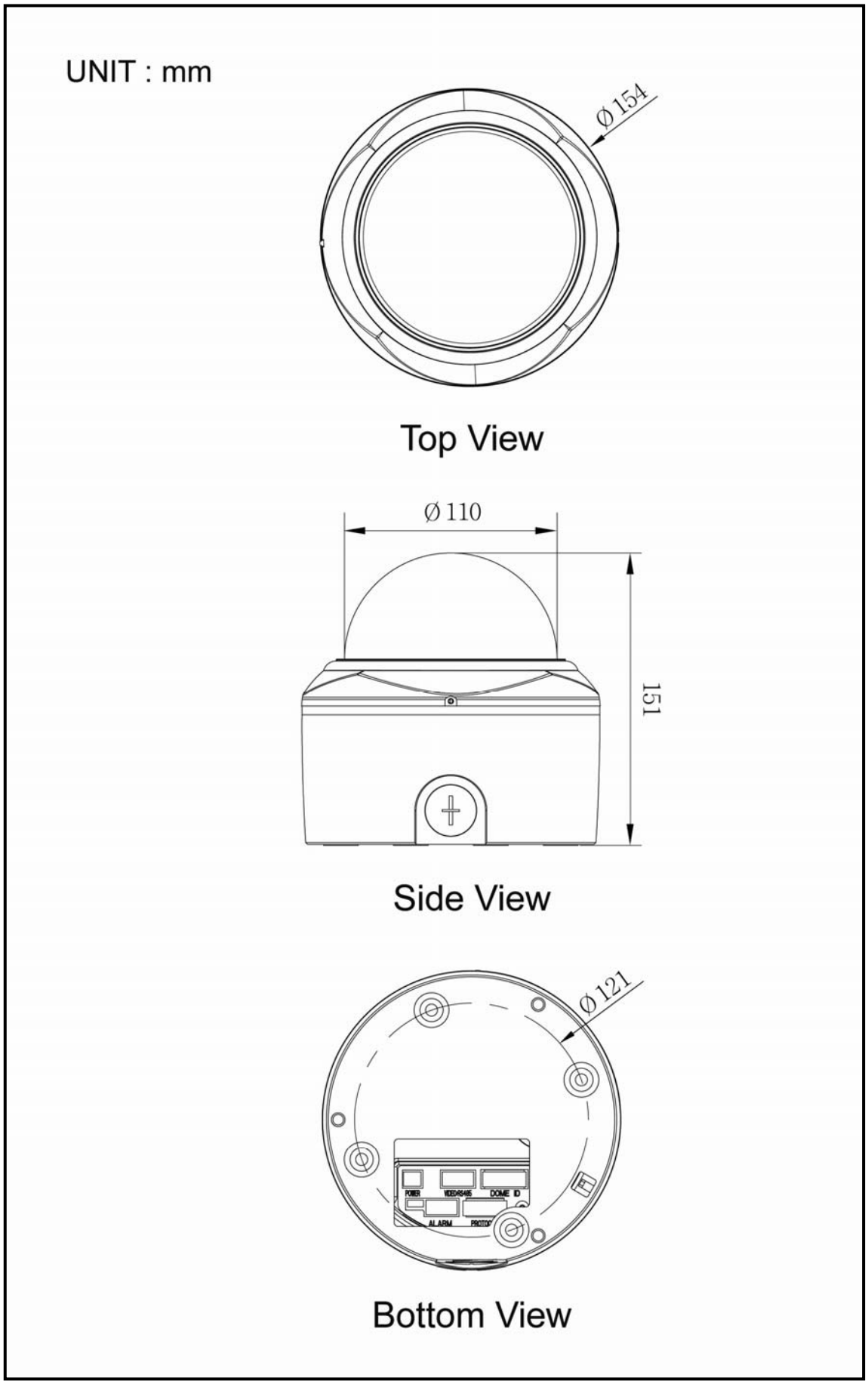


Figure 6.2 – Dimension (Surface Case)

Appendix B — Troubleshooting

If problems occur, verify the installation of the camera with the instructions in this manual and with other operating equipment. Isolate the problem to the specific piece of equipment in the system and refer to the equipment manual for further information.

Problem	Possible Solution
No video.	Verify that power is connected to all pieces of equipment in the system. Verify that the power switches are in the ON position. Check the video connections.
Poor video quality.	Check that the BNC connectors are inserted properly. Check the voltage level of the dome camera. Cable for video is shielded.
Dome cameras lose their positions.	Reset the cameras using the Dome configuration menus. Check that the dome cameras are inserted properly in the base. Check the voltage level of the dome camera.
Camera number does not match the multiplexer number.	Check the camera ID and insert the BNC cable into the proper input of the multiplexer.

Appendix C — Short Cut Key

Short Cut Key	Function
PRST	Pop up Preset setup menu.
TOUR	Pop up Tour setup menu.
SCAN	Pop up Auto Scan setup menu.
No.+ CTRL+ PRST	Store the current view at the selected number.

Short Cut Key	Function	Short Cut Key	Function
7 + ON	Change FOCUS to AUTO	7 + OFF	Change FOCUS to manual
8 + ON	Change AE to AE1	8 + OFF	Change AE to manual
9 + ON	Change Night Shot to AUTO		
10 + ON	Night Shot on	10 + OFF	Night Shot off
11 + ON	BLC on	11 + OFF	BLC off
13 + ON	Dome OSD on	13 + OFF	Dome OSD off
14 + ON	Dome Area Title Display on	14 + OFF	Dome Area Title Display off
15 + ON	View Direction on	15 + OFF	View Direction off
151 + ON	Origin Check		
152 + ON	Place the camera in the 0° area horizontally.		
153 + ON	Go to the slow speed mode	153 + OFF	Go to the normal speed mode
154 + ON	Display System Information		
155 + ON	Flip the camera in the 180° area horizontally.		
888 + ENTER	Night Shot on (in the global mode only)		
999 + ENTER	Night Shot off (in the global mode only)		

22X PTZ INDOOR DOME CAMERA

Rev.A